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comet could be discovered, although the star was in much the more unfavourable position with regard to the twilight."

Extract of a Letter from J. C. Adams, Esq., to the Editor.

"Probably you will have plenty of elements of the comet which is now starring it, nevertheless I may mention the following, which I deduced from Professor Challis's observations on March 30, April 1, 3. A comparison of these elements with an observation on April 7, gave an error of only 10″ in longitude, and nothing in latitude, so that they are probably not far from the truth.

Perihelion Passage, March 24·01221, G.M.T.

	° ′ ″
Longitude of Perihelion	213 51 32
— Ascending Node	315 29 52
Inclination	82 34 28
Log Perihelion Distance	9·4426170

Motion retrograde.

Note on the Zodiacal Light, the Companion of Procyon, and Sirius. By the Rev. T. W. Webb.

"Since my former communication on the subject of the zodiacal light, I have noticed two instances of it which offered appearances somewhat unusual.

"1853, Dec. 30. As soon as twilight had disappeared, the zodiacal light was faintly but very evidently perceived. Had it been more distinct, I thought it would have presented a very curious appearance; but its want of brightness rendered me less certain than I could have wished. Its general character, however, seemed to be that of two or three slender tapering streams, forming altogether but a narrow cone, much fainter than the galaxy, though in a beautifully clear evening, and extending towards, if not to, the stars in *Aries*.

"1854, Feb. 25. About $8^h\ 15^m$ there was a fine bright zodiacal light, passing between the stars of *Aries*, and extending towards, or perhaps reaching as far as *Saturn;* the termination, however, was very uncertain. It was very bright as compared with the galaxy, and did not appear double or divided into streams. I once or twice fancied that the south edge was best defined, but could not satisfy myself of the fact; I had, however, a stronger suspicion that the whole beam of light was a little concave towards the north pole.

"I regret to find that the observation of the companion of *Procyon*, which appeared in vol. xiii., No. 9, of the *Monthly Notices*, is of no value. I have since remarked that the principal

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star is surrounded by several small attendants, and it does not appear to which of them the observation in question may have referred.

" However strong may be the evidence in favour of a change in the colour of *Sirius*, I am not aware that any suspicion has been entertained of its light being variable. I cannot, however, divest myself of an impression that it has been more brilliant during the late winter than in the preceding one, or perhaps for several recent seasons; and more like what I seem to recollect it many years ago.

" *Tretire, March* 16, 1854."

Extract of a Letter from W. Lassell, Esq., to the Editor.

" In the *Monthly Notice* for March I observe some remarks, with two engravings of the planet *Mars*, from J. W. Grant, Esq., tending to show the great superiority of the climate of Calcutta over that of England. I can well believe that to be the case, but on reference to the circumstances of the last two oppositions of the planet, I find them so different that the striking inferiority of the English picture must by no means be laid entirely to the account of the English telescope or climate.

" At the opposition of *Mars* in 1847, its distance was only 43 millions of miles, and its apparent diameter nearly 20″; while at the opposition of this year he was 64 millions of miles off, and subtended an angle of only about 13″. Again, the meridian altitude at Calcutta, at the first epoch, would be about 81°, and at Greenwich at the latter epoch the altitude would be only about 51°. I do not consider that in a tolerable state of atmosphere the difference between 50° and 80° of altitude would very materially affect the vision; but the greater proximity of the planet in 1847 would tell most strikingly, and might lead to a very erroneous judgment of the telescopes pointed to it under circumstances so widely different. There is also another condition which should not be overlooked. There is generally a certain quantity of light with which a telescopic object is best seen; the phenomena of the disc of *Mars*, especially, require this condition, and it is, I think, very possible, that if the power applied to the large telescope was not very greatly superior to that of the small one, the minute lineaments visible in the latter might be quite drowned in the flood of light afforded by the large telescope. It is, I believe, a good maxim in scrutinising the minutiæ of planets, to employ pretty high powers, with only such an amount of light as is sufficient adequately to stimulate the eye; and by this means the effect of atmospherical disturbance (generally in some proportion to the aperture) is reduced to a minimum.

" *Starfield, 25th April,* 1854."

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